

IN THE SPECIFICATION

[0091] Referring next to Figs. 15A, 15B, there is shown the ion-blowing device 114 adapted to generate and blow positive ions formed by corona discharge. The ion-blowing device 114 includes a compressed air generator (not shown) and a blower nozzle 76, so that the generated positive ions are discharged through the blower nozzle 76 together with the compressed air. Alternatively, the positive ions are discharged ~~through a~~ through holes 71(a), 72(a) which will be described later. This ion-blowing device 114 is disposed in a portion of the grooving machine such that a protruded open-end portion of the blower nozzle 76 is located in the vicinity of the attached cutting tool, e.g., the fixed tool 69 or the rotative tool 57 (the multi-edged tool 74 is attached in Figs. 15A-15C by way of example). When the foamed urethane pad 15 is subjected to the grooving process, cut fragments or chips of the foamed urethane pad 15 are likely to be electrically charged due to friction between the cutting tools and the urethane pad 15, and stick to the surface of the urethane pad 15 and the cutting tools, resulting in difficulty in removing the charged chips from the surfaces of the cutting tool and the urethane pad. To cope with this problem, the ion blowing device 114 is operated to blow the positive ions on the chips stuck to the cutting tool and the foamed urethane pad 15, during while the grooving process is executed for the foamed urethane pad 15, whereby the chips are effectively neutralized and removed from the cutting tool and the urethane pad 15. When the multi-edged tool 74 of the fixed tool is used for forming simultaneously a plurality of grooves on the foamed urethane pad 15, in which a plurality of cutting edges are juxtaposed to each other, it is required to evenly blow the positive ions on the respective cutting edges so that the positive ions forcedly come into collision with the charged chips. To meet this requirement, the protruded open-end portion of the nozzle 76 may be suitably arranged.